

Study of professional development barriers in the formation of soft skills at different stages of HEI teachers' career through digital resources

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Abstract

The study aims to reveal the challenges encountered in the formation of soft skills at different stages of the career path of teachers in higher education institutions in Kazakhstan and Kyrgyzstan and to develop effective strategies for overcoming them. The study used questionnaires, interviews and experimental methods as well as statistical analysis. The strategy was developed in response to the questionnaire results and identified barriers focused on improving teaching effectiveness and building flexible skills when using digital resources. The experiment confirmed the effectiveness of the strategy, providing teachers with clear criteria for selecting digital resources and additional support at different career stages. The study brings practical value by providing teachers with insight into the effective selection and use of digital resources at different career stages. The results emphasise the need for targeted training to develop professional competence and successfully adapt to the dynamics of the educational environment.

Lo studio mira a rivelare le sfide incontrate nella formazione delle soft skills nelle diverse fasi del percorso professionale degli insegnanti degli istituti di istruzione superiore in Kazakistan e Kirghizistan e a sviluppare strategie efficaci per superarle. Lo studio ha utilizzato questionari, interviste, metodi sperimentali e analisi statistiche. La

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strategia è stata sviluppata in risposta ai risultati del questionario e alle barriere identificate, incentrate sul miglioramento dell'efficacia dell'insegnamento e sulla creazione di competenze flessibili nell'uso delle risorse digitali. L'esperimento ha confermato l'efficacia della strategia, fornendo agli insegnanti criteri chiari per la selezione delle risorse digitali e un ulteriore supporto nelle diverse fasi della carriera. Lo studio apporta un valore pratico, fornendo agli insegnanti una visione dell'efficacia della selezione e dell'uso delle risorse digitali nelle diverse fasi della carriera. I risultati sottolineano la necessità di una formazione mirata per sviluppare la competenza professionale e adattarsi con successo alle dinamiche dell'ambiente educativo.

Keywords: pedagogy; professional adaptation; leadership; communication; educational technologies; teaching methods

Parole chiave: pedagogia; adattamento professionale; leadership; comunicazione; tecnologie educative; metodi di insegnamento

1. Introduction

In the modern educational context, the relevance of studying and developing soft skills among teachers in Kazakhstan and Kyrgyzstan is undoubtedly due to the rapidly changing requirements of the educational environment. This is related not only to technological changes but also to the growing need to train highly qualified and flexible specialists who can function effectively in a dynamic educational paradigm. However, in addition to in-depth knowledge in their field, skills that extend beyond technical expertise are in demand. The traditional role of the teacher is being transformed and there is an increasing emphasis on the ability to work collaboratively in a team, high-quality communication, problem-solving skills and the ability to adapt quickly to changes in the work environment (Shyshenko et al. 2024). Teachers with developed soft skills are crucial to the formation of successful professionals by actively engaging students in teamwork, conflict resolution and creative problem solving and creating conditions for the formation of general skills integral to successful existence and professional growth in modern society (Fernández-Arias et al., 2021). The development of their skills in analysing and evaluating new information, effective interaction and cooperation allows them to work successfully in a team and develop projects (Angelini et al., 2022). In addition, their effective communication skills contribute to quality interactions with students, parents and colleagues. Thus, the importance of developing soft skills in the educational process goes beyond the mere assimilation of the curriculum.

With rapid technological progresses, teachers are urged to actively adapt to changes in their profession. Digital resources, providing a wide range of possibilities, are becoming a key tool for competence building and innovation in the educational process. The level of flexibility depends on the willingness of teachers to constantly update their knowledge, emphasising the importance of reflectiveness (Khmelnyska & Tkachenko, 2023). In the light of current research, the importance of teachers' adaptation to rapidly changing technologies is emphasised and the role of digital resources in competence building is highlighted. Amantay and Ermakov (2021) considered the importance of developing "soft skills" in university students. Among the skills analysed, the skills of forming personal opinion and decision-making were the most demanded, while the least demanded were the skills of retraining and people management. The authors call for the introduction of "soft skills" training in educational programmes in Kazakhstan as an innovative component. In the discussion of educational systems, Salybekova et al. (2023) investigated the opinions and experiences of senior English teachers and experts regarding the appropriate training of foreign language teachers to implement the model of critical thinking, creativity, communication, collaboration (4C) in foreign language teaching. The results of the survey showed that 4C model training has a positive effect on learning outcomes. The authors recommend revising teacher training programmes to include the 4Cs model to improve the quality of foreign language education in Kazakhstan.

Sadirbekova et al. (2021) employed a descriptive method to analyse the process of managing the psychological and pedagogical competencies of a higher education teacher in Kazakhstan and Kyrgyzstan. Based on the results obtained, the authors conclude that it is necessary to properly organise activities and actively use technology to work with students, which allows maximum combination of educational and educational goals both in the educational process and outside it. Chattopadhyay and Jankunaite (2022) analyse the problems of the educational system in Kazakhstan and Kyrgyzstan and its impact on student learning outcomes. The article emphasises the importance of teacher training and support systems, as well as the need to use digital technologies in the educational process. The proposed approach aims to institutionalise three key factors of teaching quality: strong initial education, sustainable induction into the profession and long-term mentoring. Actual matters concerning the importance of adequate training and providing teachers not only with new educational methods but also

with the necessary resources are raised in the study by Kazakbaeva (2023). The author reveals that despite the structural reforms, changes in curricula have not achieved the expected results. One of the key conclusions is the lack of system support and necessary resources for the successful implementation of new teaching methods. However, it is necessary not only to optimise the flexibility of the educational process but also to provide teachers with the tools to successfully resist the challenges of modernity, contributing to their professional development and teaching effectiveness. The study aims to identify problem areas that hinder or slow down the process of developing flexible skills in teachers of different career stages and to propose methodologies to address them. This approach will allow not only to effectively adapt to the challenges of modern education but also to promote the development of teaching competencies.

2. Materials and methods

A mixed research design is used, including qualitative and quantitative methods as well as an experiment. Qualitative methods include in-depth interviews with teachers to understand their experiences with barriers to soft skills formation. Quantitative methods include online surveys and questionnaires to gain an overview and identify trends. An experiment is used to evaluate the effectiveness of the strategy to overcome barriers to soft skills formation among teachers. Types of data sources for this study include interviews with teachers to obtain qualitative data on teachers' individual experiences and views on the issue of soft skills formation. Questionnaires collect quantitative data from more participants to identify general trends. Discussions in teacher forums provide a source of data on social interactions in the professional environment. Data from the experiment will provide information about the effectiveness of the developed strategy.

The study includes a situation with three samples from three major HEIs in Kazakhstan and Kyrgyzstan: Kazakh National Pedagogical University named after Abay, Almaty Humanitarian-Economic University and Kyrgyz National University named after J. Balasagyn. The study included 200 teachers in the core sample, the purpose of which was to collect questionnaire data to identify general trends and patterns in teaching and soft-skill development. Their teaching practices, challenges and perspectives were explored in more detail in the context of in-depth interviews, for which 30 teachers were selected from the core sample. A sample of 40 teachers took part in the experiment. It's divided into control and experimental groups to test the effectiveness of the developed teaching strategy.

The participants for the sample were recruited through adverts and surveys among teachers at the target universities. This established direct contact with potentially interested and motivated teachers. After the preliminary collection of applications, the selection process began by reviewing each candidate individually. The sample for the questionnaire consists of 150 people and was formed with different career stages and academic specialisations in mind. It was divided into 50 individuals each into categories based on a teacher's length of service and level of professional development: teachers at the beginning of their career (up to 5 years of service), teachers at a transitional stage of their professional development (5 to 15 years of service), and experienced teachers at an advanced stage of their career (more than 15 years of service). The sample also included teachers from a variety of academic disciplines, ranging from humanities and social sciences to science and engineering. The sub-sample for the interviews was formed by selecting participants from the main sample. The 20 participants had to be actively using digital resources in their daily work to have enough experience and insight to discuss this issue. The experiment included a separate sample with representatives from different stages of professional development who were randomly selected from those who responded to invitations via email from the target universities. A division was made into two equal groups of 50 people each: a control and an experimental sample.

The questionnaire was designed to explore specific aspects related to the development of soft skills. Questions were posed to identify which soft skills teachers considered to be their strengths and which areas felt in need of improvement. The questionnaire also included a question on the active use of digital technology for professional development. As part of the interviews, teachers reviewed their experiences of using digital tools in teaching, discussed challenges encountered and suggested possible solutions. The interviews included questions on perceptions of digital technologies, evaluation of their effectiveness and impact on the quality of education. There was a space for free speech where participants could share their reflections and ideas on the topic.

3. Results

3.1 Questionnaire

An even sample of teachers at different levels and specialisations was used to collect data on how teachers at different career stages use digital resources, their attitudes towards digital technologies and barriers to professional development.

The analysis of the answers allowed us to identify several general trends. First of all, the use of digital resources by teachers is already a common practice and, in most cases, does not require additional training (Figure 1). At the initial stage of their career, teachers actively and regularly use digital resources in their professional activities. This is mostly related to the fact that at this stage of their career, teachers are part of a younger generation that is more open to embracing new technologies and innovations. In the transition stage, teachers continue to use digital resources, but no longer as frequently as they did in the initial stage. This may be because the most effective ways to use the available resources are emerging, and teachers are focused on specific tools that help them in their work. Teachers in the advanced stage of their careers, with more professional experience, keep on using digital resources regularly, though less than their younger colleagues. This may be because teachers already have established teaching methods and practices and use digital resources as additional tools to improve the quality and effectiveness of their practice.

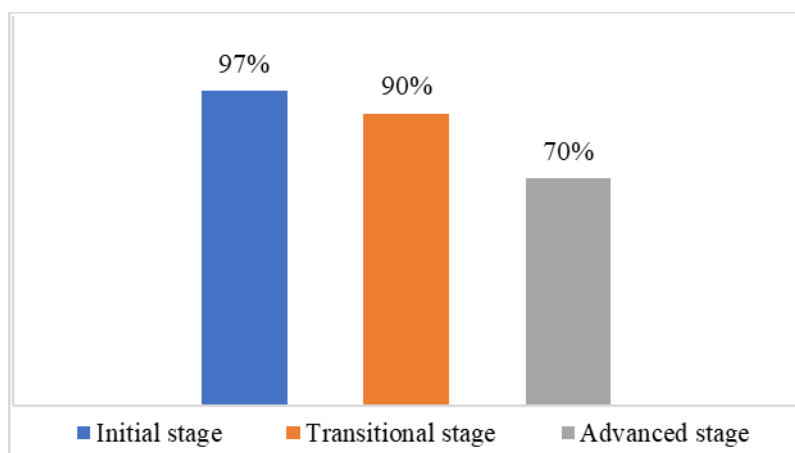


Figure 1. Use of digital resources by teachers at different stages of professional activity

To analyse barriers to the development of teachers' flexible skills, it is relevant to consider areas of strength and weakness, which are often interrelated and can influence each other. It is worth noting that some skills may compensate for or, conversely, exacerbate problems with others. For example, well-developed critical thinking can help in assessing and identifying one's weaknesses, while underdeveloped communication skills can be an

obstacle to teamwork, even if a teacher has good organisational skills (Sadirbekova et al., 2021). During the questionnaire survey of teachers at different career stages, it is possible to notice some significant cross-correlations between their length of service and the flexibility skills they highlight as their strengths (Figure 2). The data analysis showed not only teachers’ strengths but also skills that should still be strived for (Figure 3).

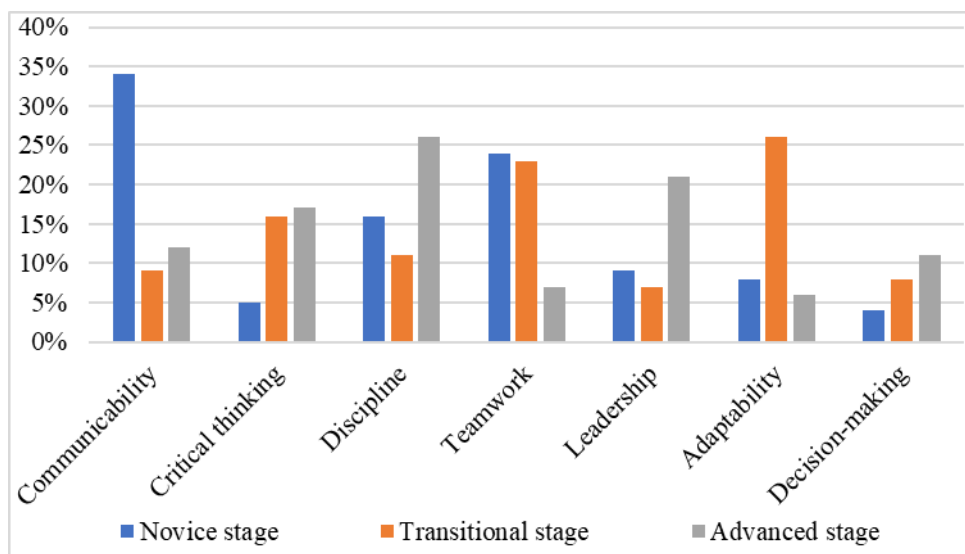


Figure 2. Distribution of strong flexible skills of teachers at different career stages

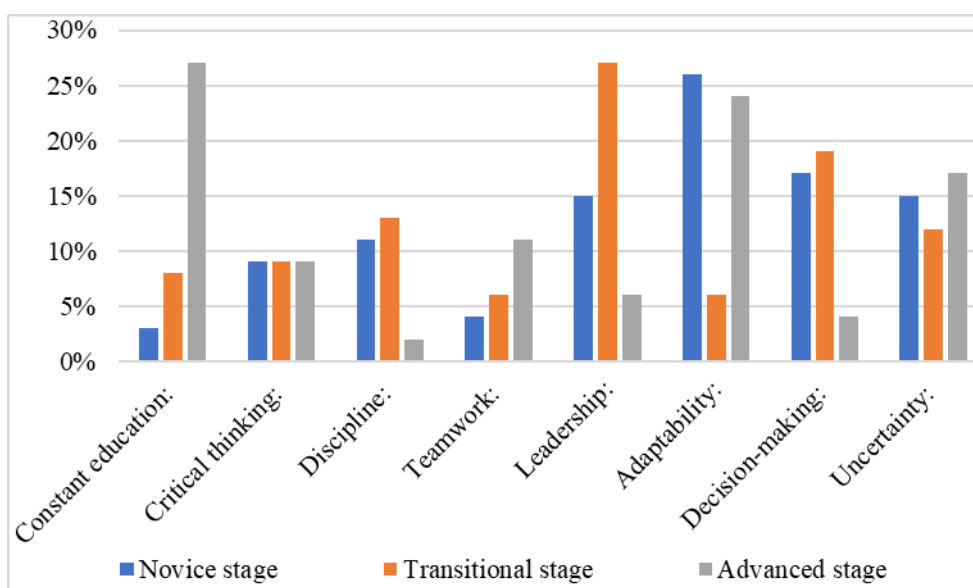


Figure 3. Distribution of weak flexible skills of teachers at different career stages

At the initial stage of a career, the main focus of teachers is on developing communication and teamwork. However, at the same time, they face difficulties in adaptability and quick decision-making. This stage requires familiarity with the educational environment, learning new teaching methods and maintaining effective communication with students. When teachers’ responsibilities become more malfunctioning and complex, at the transitional stage, a significant number of teachers identify accommodation and teamwork as their strengths. A

portion of interviewees indicate an increase in their critical thinking skills, reflecting the increased intellectual demands of their line of work. However, the same stage of transition reveals new complexities in decision-making and leadership, which may prove to be a barrier to effectively carrying out complex tasks and managing larger groups of students or projects. This can affect the innovation and adaptive abilities in a dynamic educational environment (Lytvynko & Ryzhko, 2023).

Organisational skills and leadership have priority at an advanced stage of the career. This may reflect the increased complexity of tasks and the need for teachers to take on more leadership roles and make more informed decisions at this stage (Bortolotti & Stanzione, 2023). However, the challenges of constant learning and adaptation at the advanced stage are related to the difficulty of keeping up with current trends and innovations in pedagogy. This can result in falling behind current practices, reducing the ability to attract and retaining students' attention and worsening the impact on the educational process. High levels of uncertainty can lead to reduced confidence in personal abilities and doubts about professional skills, which is particularly important in the teaching profession. This can not only negatively affect the ability to teach and interact with students, but can also cause stress and job discontent.

3.2 Interview

The interviews focused on the following aspects: what kind of digital resources are used, how they are used to develop flexible skills, what challenges teachers face when using these resources, and how these challenges could be overcome.

Beginning faculty prefer courses on platforms like Coursera, edX, and LinkedIn Learning to master the basic principles of learning, communication, and adaptability. However, instructors appreciate the moderate level of support from the university and face limited access to personalised learning programmes and consultancy resources. This could be one of the reasons why difficulties at organising digital tools and making decisions quickly emerge. Newbie teachers often find it difficult to navigate the variety of digital tools designed to support their professional development. Difficulties in adapting to modern educational requirements form an additional layer of challenges. Rookie teachers feel underprepared for new teaching methodologies and find it difficult to interact with digital tools in a dynamic learning environment.

As teachers in transition face professional development, they are faced with the need to choose more in-depth and specialised digital tools. This, in turn, can pose challenges in determining which resources will best meet their needs and goals. This stage also identifies the need to create personal educational materials. Teachers perceive that they need to become more involved in the process of developing personalised learning materials, which requires them to become more proficient with digital tools. As responsibilities become more multifunctional, there are time constraints in learning new technologies. Lack of time can be a barrier to deep learning and hands-on mastery of digital tools. Some educators highlighted that limited access to paid educational platforms or courses can limit their ability to gain deeper and more specialised knowledge. There are also challenges in developing the leadership skills required at this stage through digital resources. Interviewees indicate that communication, motivation and conflict resolution are better developed in face-to-face interactions and digital resources may limit opportunities to practise these skills in real-life scenarios as well as interacting with other participants, which is important for developing a leadership style. Leadership skills are closely linked to emotional intelligence, including the ability to recognise the emotions of others and empathy. Digital resources may not provide sufficient opportunities to develop these aspects as they are information centred. Trainers also argue

that some training programmes face the problem of authenticity, providing standardised scenarios and solutions that do not always correspond to the real challenges and specificities of a particular professional field.

The advanced stage of the career is characterised by teachers' complexity of tasks. They are responsible for larger groups of students, participate in complex projects and ensure a high level of educational process. This requires the development of organisational skills to manage time and resources effectively. There is also an increasing need to take on more leadership responsibilities. Professionals may be project managers, supervisors of student groups or involved in the development of new educational programmes. Advanced educators face the challenge of constantly learning and adapting to new educational demands and trends. However, maintaining current trends is also difficult due to limited time and resources. This can complicate the integration of modern pedagogies and technologies into the educational process. Responsibilities and high expectations make digital education sustain, which can create difficulties in using resources effectively. The level of university support is again declining. A lack of resources and platforms to experiment with new ideas can make it difficult to develop an innovative approach to learning. There is also a lack of support for career development such as opportunities for higher positions, project involvement or internal promotion.

Teachers at all stages of their careers express some difficulty in selecting appropriate digital resources because of the varied offers on the market. Lack of clear criteria for assessing the effectiveness and appropriateness of resources for their purposes and can make it difficult to choose the best option. Lack of understanding of how digital resources impact the development of specific flexible skills also proves to be a challenge for teachers at different career stages. Lack of clarity on this issue can reduce motivation to integrate technology into the classroom. The limited functionality of digital resources becomes another difficulty. Some platforms prove to be less flexible and do not provide an adequate aim for the customisation of specific educational purposes. This limit can be a barrier to the proper use of resources in the educational process. In addition, educators at all levels face challenges of self-determination in the context of digital technologies. Difficulties arise in identifying their needs in digital education and in finding the best ways to integrate technology into their pedagogical practice (Isak et al., 2023). Thus, the common difficulties in selecting, and understanding the impact and functionality of digital resources, as well as problems of self-determination, emphasise the importance of targeted training for teachers in the use of technology in education, focusing not only on the technical aspects but also on the practical aspects and effectiveness in their daily activities.

3.3 Development of a model for flexible skills training

The following strategy includes a system of regular self-assessment techniques to identify flexible skills and development needs. These techniques include questionnaires, online tests, reflective assignments and other forms of assessment to enable teachers to evaluate their current level of skills and identify areas requiring additional attention.

The methodology of professional teacher development is based on the concept of active learning and flexible skills development in the context of pedagogical practice. According to the theory of active learning, teacher participation and self-activity in the process of professional development should be stimulated, promoting deeper learning of knowledge and skills. The first stage of the methodology, aimed at teachers with initial experience, embodies the principles of constructivism. According to this approach, active participation and reflection are considered key to effective learning (Ragusa et al., 2022). Teachers engage in dialogue by analysing virtual cases of educational practice. This experience stimulates critical thinking and self-regulation, which is essential for the development of confidence and understanding of professional scenarios.

The second stage, aimed at middle-level teachers, focuses on in-depth professional development through the introduction of innovative approaches in the educational process. Teachers actively explore not only digital resources such as Massive Open Online Courses (MOOCs) and educational webinar platforms but also active learning methods such as flipped learning and project-based learning. This stage promotes not only digital skills but also the ability of thinking innovatively and adapt effectively to a variety of educational scenarios and leadership. Thus, at this stage, teachers not only rethink their approaches to teaching in the context of the digital environment but also develop skills that enable them to successfully implement innovative methods and technologies in the educational process. Participating in online seminars on platforms such as edX or LinkedIn Learning can contribute to faculty leadership development by providing access to expertise and tools for effective educational management. Mastering a variety of educational resources and active learning methods not only promotes professional growth but also fosters sustainable strategies for coping with the complexities of decision-making and leadership in educational settings.

The third stage of the methodology, suitable for both transitional and advanced career stages, is based on mentoring and collective projects and pertains to the theory of the sociocultural approach at learning. Teachers engage in active interaction with experienced colleagues, learning new knowledge and skills through social interaction and co-creation. Platforms like Preplaced present innovative solutions for organising one-to-one mentoring. Through the platform, mentees can develop individual development plans, identify their goals and objectives, and receive specific counselling and feedback from their mentor. The use of collaboration and idea-sharing tools such as Slack or Trello facilitates task organisation, information sharing and team interaction. Collecting and presenting their digital work (such as educational videos, interactive tutorials, and online courses) in a portfolio format can be a way to showcase their skills and achievements. It also provides teachers with feedback from colleagues and students to further improve their teaching and learning methods.

Finally, the fourth stage of the methodology for advanced teachers involves independent research and projects and reflects the principles of self-regulation. Teachers take an active role in their professional development by creating and implementing individual educational projects, which contributes to the development of their confidence and self-control. As well as engaging in deep self-learning through a variety of research and educational resources. This includes reading topical articles, participating in webinars, studying books and taking online courses to expand their theoretical knowledge. Teachers can use ActiveCollab to keep track of time and manage their projects. This will facilitate the planning and tracking of creative projects by also providing team collaboration and real-time communication features. Creating electronic journals in Evernote and OneNote will allow faculty to capture and track their goals, ideas, and development plans. These tools also provide easy access to information from any device. Learning Analytics tools are offered to track and analyse their academic progress, effectiveness of techniques and student assessment. Interacting with experienced peers through mentoring can also be an effective resource at this stage. Platforms such as EdConnect, MentorNet, or TeachForward provide the opportunity to find mentors online, providing support, advice, and shared experiences. Teachers are also encouraged to become creators and teach their courses on platforms such as Udemy, Coursera, or Teachable. Advanced teachers may aim to leadership roles within their educational institution or professional community. This may require them to participate in discussion groups, workshops, and conferences where they can share their views and ideas and learn from other educational leaders (Abbiati, 2021). All of these tasks are more demanding and provide opportunities for teachers to develop and improve their competencies in depth.

In general, this methodology is based on a comprehensive approach to the professional development of teachers, integrating the theoretical foundations of active and transformative learning, as well as the principles of

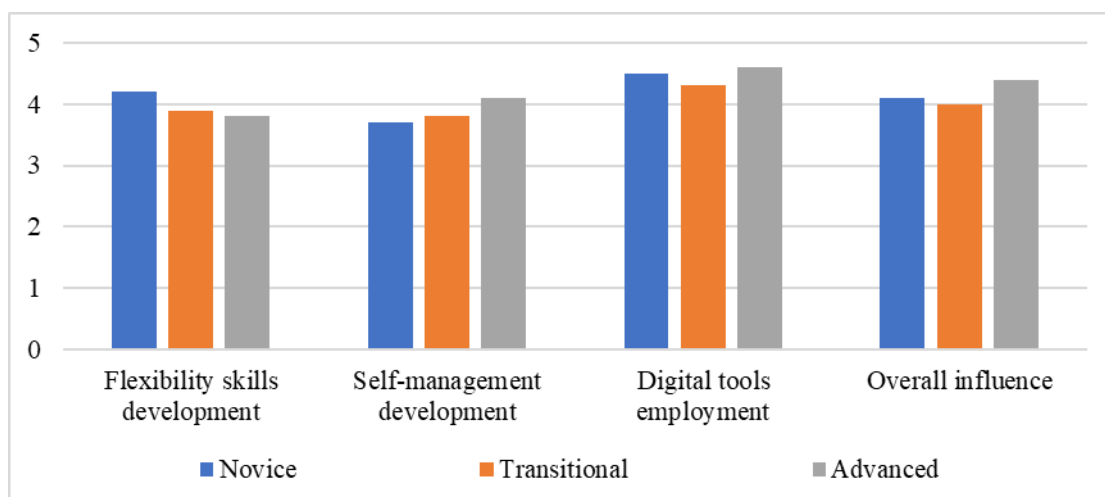
sociocultural and constructivist approaches. It also stimulates the development of flexible skills, self-regulation and personal education in the context of modern educational practice.

3.4 Experiment

Within the framework of the experiment, two groups of teachers were formed - control and experimental. Teachers from the experimental group go through the proposed stages of the strategy for a certain period, actively implementing digital resources in the educational sphere to develop their flexible skills depending on their career stage.

Teachers with primary experience actively participated in the dialogue, analysing virtual cases of educational practice. They also used platforms such as EdPuzzle to create interactive video lessons, and Padlet to collaborate and discuss cases. Intermediate-level teachers actively explored MOOCs such as Coursera and edX for professional development and used active learning methods such as flipped learning and project activities and Trello to organise project activities. Advanced teachers were engaged in deep processes of independent learning and research, utilising extensive research and educational resources. This ensured the development of conceptual frameworks and theoretical underpinnings. They actively utilised project management platforms such as ActiveCollab to effectively manage their projects, and e-journaling tools such as Evernote and OneNote to reflect and plan their professional development. Tutors also provided interaction with experienced colleagues through mentoring.

Teachers reported that they improved their time management, resource allocation and workflow organisation. Most participants reported significant improvement in these areas. It is also worth noting that the use of digital resources was rated as particularly useful in building flexible skills. This indicates the importance of integrating modern technology into learning and professional development. Overall, the strategy was perceived favourably by most participants, indicating its success and potential for further use and development. Based on the results of the questionnaires, it can be concluded that the proposed strategy was very effective in developing flexible skills and self-regulation in teachers at all levels of professional development (Figure 4). The participants who took part in the strategy appreciated its impact on their professional activities. A detailed analysis of the questionnaire responses may further highlight specific aspects where the strategy was most successful, which may serve as necessary information for further improvement and adaptation to teachers' needs.



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Figure 4. Evaluation of competence development in the experimental group at different stages of professional development

The experimental group showed higher scores in all aspects than the control group (Figure 5). These results indicate the positive impact of the experiment and support the assumption that the developed strategy is effective at overcoming the obstacles described by the teachers in the questionnaire.

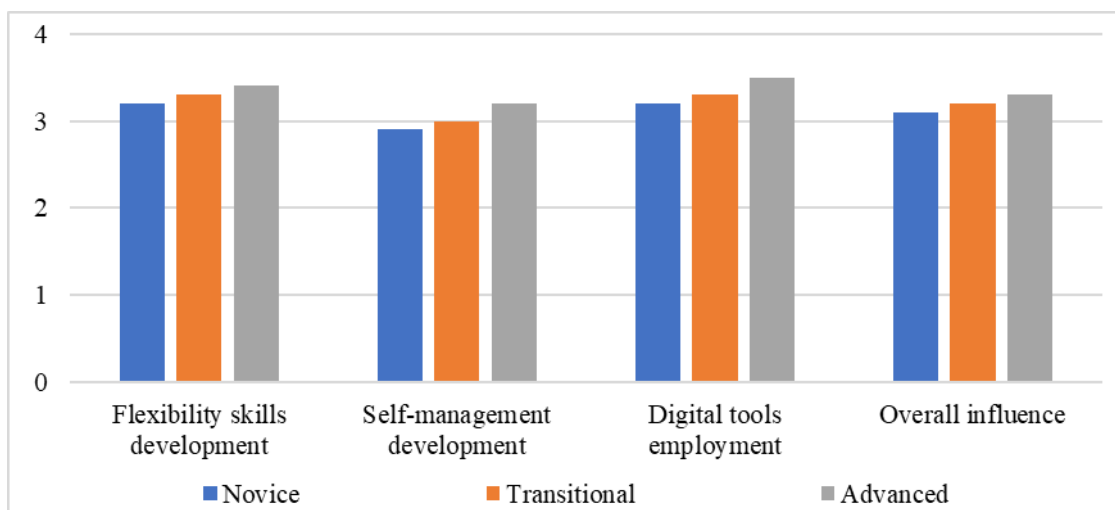


Figure 5. Evaluation of competence development in the control group at different stages of professional development

The study findings emphasise the significance of the proposed strategy in developing flexible skills in teachers at different levels of professional careers. However, it is also necessary to investigate the prospects for the development of the strategy and its successful adaptation to a variety of educational environments, which will expand its applicability and effectiveness in the context of modern education. This will contribute to a more accurate and comprehensive view of the process of teachers’ professional development and increase the overall effectiveness of educational practices.

4. Discussion

Study findings suggest that the use of active and sociocultural approaches to teaching significantly enhances the adoption and use of digital technologies by teachers with different levels of experience. This is particularly evident when teachers adopt new technologies against a backdrop of general acceptance in the educational community. The development of flexible skills and the use of digital resources have great power in contemporary educational practice (Bahno & Serhiichuk, 2023). Such issues are reflected in other works.

According to the results of a study by Ağçam and Dogan (2021), prospective teachers’ perception of flexible skills varies depending on their specialisation and experience, while gender differences do not influence the evaluation of these skills. The researchers conducted quantitative analyses using the SPSS statistical package, drawing on data collected through a flexible skills questionnaire. As a result, researchers found differences in students’ perceptions of flexible skills according to their specialisation and experience, while the current study highlights the impact of digital resources for teachers. Thus, both studies make a valuable contribution to understanding the importance of flexible skills in education, but they focus on different aspects of the issue and use

different approaches to explore it. The professional practice of special education teachers in the context of inclusive education also requires certain flexible skills. Fernandes et al. (2021) analysed research articles from ERIC, Scopus, Web of Science and PsycINFO and found that effective communication, teamwork and flexibility are most important in their professional practice. They also identified gaps in the preparation of these teachers and the need for these areas in teacher training and certification. Thus, both studies highlight troubling problems in flexible skills in teachers and emphasise the need for action in order to develop such crafts. The current study offers concrete solutions related to the use of digital learning resources to develop flexible skills in teachers.

The application of flexible skills in education practice has become even more relevant during the pandemic caused by COVID-19, as many educational institutions were forced to move learning to an online format (Aleksseva, 2022). This context covers the study conducted by Antón-Sancho et al. (2021). The study identified the challenges caused by the COVID-19 pandemic in moving the educational process to an online format. The results show that despite Latin American countries lagging in digital development, teachers have a sufficient level of flexible skills to successfully apply digital competencies. This study adds to the current work as it demonstrates how important it is to ensure learning flexibility and readiness to transition to distance learning in the face of changing world circumstances. The incorporation of a problem-based approach in online learning is discussed by Aslan (2021). The author investigates the impact of this approach on student performance, problem-solving skills and the level of interaction in online first-aid classes. The results show that this approach is more effective compared to traditional teaching methods. This study enhances the thesis of the current work on the importance of flexible skills in learning by supplementing them with a direct study of a teaching method that relies on these skills. It also argues in favour of using a problem-based approach, which goes along with current assumptions about how flexible skills training can be effectively integrated into educational programmes.

Haleem et al. (2022) emphasize that digital technologies are a necessary tool in the concept of quality education proposed in the framework of the UN Sustainable Development Goals for 2030. Digital technologies can be used to ensure that pollution and waste are reduced or eliminated while increasing productivity and efficiency. These technologies have shown to have a powerful impact on the educational system, especially during the COVID-19 pandemic that fuelled the use of digital technologies in education. This study acts as a complement to the present work as it confirms the value of digital competencies and shows their effectiveness in providing quality education. Ahmad et al. (2021) revealed that most information professionals in universities in Pakistan consider continuous learning opportunities related to soft skills as important. Nevertheless, professionals note the lack of such training programmes, stressing the need to develop soft skills at the level of professional associations. The authors confirm the hypothesis of the current study about the inadequacy of professional development programme offerings in soft skills.

The importance of soft skills such as creativity, problem-solving, and communication skills in the field of design is considered by Nazaré de Freitas and Almendra (2022). The authors conducted an extensive analysis of the academic literature on this topic and found that these skills are key to a successful career and a productive design process. However, as in the current study, challenges related to unclear terms and lack of accurate definitions of the skills, as well as a lack of tools to assess skill learning are noticed here. The results of the paper integrate the current study by confirming the importance of having suitable criteria and methods for assessing learning progress in educational programmes. Reporting on the experiences of participants in a professional teacher education program in Indonesia, Huda et al. (2021) highlight how soft skills can be successfully integrated into the educational process. The results of the study showed that the study participants learned soft skills in hidden

curriculum models. The researchers recommend a structured representation of soft skills in the curriculum to create a more effective educational process, which also complements the current work by bringing an additional interdisciplinary context to soft skills training and reiterates the importance of integrating such skills into training programmes to enhance the effectiveness of the educational process. An innovative approach through a serious game of FLIGBY was also presented.

Almeida and Buzady (2022) presented an analysis of it for the assessment and development of soft skills of students in higher education institutions. It is observed that the results obtained from the game are highly consistent with the fundamental soft skills required in the 21st century. The study also shows that FLIGBY can be used to develop skills in areas such as leadership, conflict management, diplomacy and emotional intelligence. The findings of this study are relevant as they confirm the potential of using innovative approaches such as game-based technologies to integrate and develop soft skills in educational programmes. Aryani et al. (2021) developed the concept of the influence of soft skills on career engagement through psychological capital (PsyCap) in different age groups. The study shows that soft skills have a positive effect on PsyCap and subsequent career engagement, with this effect being stronger in students than in working professionals. These findings are significant for the current study in the context of understanding the role of soft skills in career progression and confirm the importance of incorporating soft skills development into educational programmes and corporate staff development strategies. They also emphasise the need to consider age differences when selecting soft skills development strategies.

Chan et al. (2021) discussed the teachers' views on the assessment of written reflections as part of their teaching. The authors discuss teachers' understanding of the reflection process, their approach to evaluating reflection, and training issues. The findings provide insights into how teachers perceive and evaluate reflection, which is important for the current study as reflection is often associated with soft skills development. This approach may also be an important addition to ongoing work on integrating soft skills into educational programmes. Mislia et al. (2021) evaluated the effectiveness of training to improve teachers' professional development and soft skills. It is found that such trainings contribute to the improvement of teachers' professional performance, especially in the context of the COVID-19 pandemic. The study shows that practical training can stimulate internal organisational development by enhancing employees' ability to work together and solve problems, which in turn improves teachers' soft skills. These findings expand the understanding of soft skills training methodologies and their applicability in different contexts, adding new dimensions to mechanisms for enhancing the effectiveness of organisations' internal development.

All the presented studies reinforce the importance of soft skills in the modern educational process and their role in the professional development of teachers. However, despite all the evidence and the presented models of teaching, further research in this area is required. The complexity of soft skills formation and measurement, contextual specificity and diversity of needs of the participants of the educational process require an individualised approach and flexible programme preparation.

5. Conclusion

The study confirmed the existence of barriers set against the development of flexible skills among teachers at different stages of their careers in the information age. Regardless of experience and expertise, educational professionals often face uncertainty in selecting and utilising digital tools. The importance of university support for novice teachers and the challenge of accessing digital resources for those in transition is highlighted, while more experienced professionals are challenged to improve their skills and abilities in the use of modern learning

technologies. At the same time, the challenge for experienced professionals is deepened by the lack of time for self-study and institutional support learning. Thus, the challenge is to create effective approaches to learning and implementing digital resources at all stages of teachers' professional development. Based on the findings, a strategy was created to help address the identified difficulties at all stages of a teacher's career and to assist in developing the most effective pathway for digital inclusion. This strategy offers significant practical value as it enables teachers to overcome barriers and successfully adapt to the requirements of the modern educational process.

Although the study aimed to successfully achieve its purpose, the dynamics of digital technology and the demands of teacher training require constant updating of the findings and additional research in this area. Different contexts and the variety of needs of educational stakeholders should be considered for a deeper understanding of this topic. An important topic for further research is to better analyse the effectiveness of digital resources, the strategies developed and their adaptation in a variable educational environment. These issues require additional research to further improve teacher professional development in the context of the digitalisation of education.

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Dinara Sadirbekova, Gulmira Karabalaeva, Sabira Nishanbayeva, Yernar Ospankulov, Lazziyat Saidakhmetova – *Study of professional development barriers in the formation of soft skills at different stages of HEI teachers' career through digital resources*

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Dinara Sadirbekova, Gulmira Karabalaeva, Sabira Nishanbayeva, Yernar Ospankulov, Lazziyat Saidakhmetova – *Study of professional development barriers in the formation of soft skills at different stages of HEI teachers' career through digital resources*

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